Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A digital image processing method for real-time automatic abnormality detection of in vivo images, comprising the steps of:

a) forming an examination bundlette of a patient that includes real-time captured in vivo images and image specific metadata relating to only a portion of a ~~gastrointenstinal~~ gastrointestinal tract at a specific time;

b) real-time image processing of image packets within the examination bundlette;

c) automatically detecting and analyzing one or more abnormalities in the examination bundlette's real-time captured images using image processing algorithms in cooperation with predetermined criteria for the patient; and

d) signaling an alarm provided that the one or more abnormalities in the examination bundlette have been automatically detected.

2. (Original) The method claimed in claim 1, wherein the step of forming the examination bundlette includes the steps of:

a1) forming an image packet of the real-time captured in vivo images of the patient;

a2) forming patient metadata; and

a3) combining the image packet and the patient metadata into the examination bundlette.

3. (Original) The method claimed in claim 1, wherein the step of processing the examination bundlette, includes the steps of:

b1) separating the in vivo images from the examination bundlette; and

b2) processing the in vivo images according to selected image processing methods.

4. (Original) The method claimed in claim 3, wherein the selected image processing methods include color space conversion and/or noise filtering.

5. (Original) The method claimed in claim 4, wherein the color space conversion converts the in vivo images from RGB space to generalized RGB space.

6. (Original) The method claimed in claim 1, wherein the step of automatically detecting the one or more abnormalities in the examination bundlette includes the steps of:

c1) detecting parameters that exceed a given threshold of physical data as identified in the in vivo images.

7. (Original) The method claimed in claim 1, wherein the step of automatically detecting the one or more abnormalities includes the steps of:

c1) detecting parameters that are substantially different from a given geometric template of physical data as identified in the in vivo images.

8. (Original) The method claimed in claim 6, wherein the given threshold is based on statistical data according to the predetermined criteria.

9. (Original) The method claimed in claim 7, wherein the geometric template is formed by training a template according to the predetermined criteria.

10. (Original) The method claimed in claim 1, wherein the step of signaling the alarm includes the steps of:

d1) providing a communication channel to a remote site; and

d2) sending the alarm to the remote site.

11. (Original) The method claimed in claim 1, wherein the step of signaling the alarm includes the steps of:

    d1) providing a communication channel to a local site; and

    d2) sending the alarm to the local site.

12. (Currently Amended) A digital image processing system for real-time automatic abnormality detection of in vivo images, comprising:

    a) means for forming an examination bundlette of a patient that includes real-time captured in vivo images and image specific metadata relating to only a portion of a ~~gastrointenstinal~~ gastrointestinal tract at a specific time;

    b) means for real-time image processing of image packets within the examination bundlette;

    c) means for automatically detecting one or more abnormalities in the examination bundlette's real-time captured images using image processing algorithms in cooperation with predetermined criteria for the patient; and

    d) means for automatically signaling an alarm provided that the one or more abnormalities in the examination bundlette have been detected.

13. (Original) The system claimed in claim 12, wherein the means for forming the examination bundlette, further comprises:

    a1) means for forming an image packet of the real-time captured in vivo images of the patient;

    a2) means for forming patient metadata; and

    a3) means for combining the image packet and the patient metadata into the examination bundlette.

14. (Original) The system claimed in claim 12, wherein the means for processing the examination bundlette, further comprises:

    b1) means for separating the in vivo images from the examination bundlette; and

    b2) means for processing the in vivo images according to selected image processing methods.

15. (Original) The system claimed in claim 14, wherein the selected image processing methods include color space conversion and/or noise filtering.

16. (Original) The system claimed in claim 15, wherein the color space conversion converts the in vivo images from RGB space to generalized RGB space.

17. (Original) The system claimed in claim 12, wherein the means for automatically detecting abnormalities further comprises:

    c1) means for detecting parameters that exceed a given threshold of physical data as identified in the in vivo images.

18. (Original) The system claimed in claim 12, wherein the means for automatically detecting abnormalities further comprises:

    c1) means for detecting parameters that are substantially different from a given geometric template of physical data as identified in the in vivo images.

19. (Original) The system claimed in claim 17, wherein the given threshold is based on statistical data according to the predetermined criteria.

20. (Original) The system claimed in claim 18, wherein the geometric template is formed by training a template according to the predetermined criteria.

21. (Original) The system claimed in claim 12, wherein the means for signaling the alarm further comprises:

    d1) means for providing a communication channel to a remote site; and

    d2) means for sending the alarm to the remote site.

22. (Original) The system claimed in claim 12, wherein the means for signaling the alarm further comprises:

d1) means for providing a communication channel to a local site; and

d2) means for sending the alarm to the local site.

23. (Currently Amended) An in vivo camera for employing real-time automatic abnormality detection of in vivo images, comprising:

a) means for forming an examination bundlette of a patient that includes real-time captured in vivo images <u>and image specific metadata relating to only a portion of a gastrointestinal tract at a specific time</u>;

b) means for <u>real-time image</u> processing <u>of image packets within</u> the examination bundlette;

c) means for automatically detecting <u>and analyzing</u> one or more abnormalities in the examination bundlette<u>'s real-time captured images using image processing algorithms in cooperation with</u> ~~based on~~ predetermined criteria for the patient; and

d) means for signaling an alarm provided that the one or more abnormalities in the examination bundlette have been <u>automatically</u> detected.